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SLIDES: Urban Water Reliability and the Salton Sea: Can We Have Both?

Michael Cohen

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Urban Water Reliability & the Salton Sea: Can We Have Both?

Michael Cohen
Pacific Institute

Martz Summer Conference
June 11, 2015

Pacific Institute



Founded in 1987 and based in Oakland, California (with a Boulder office across the street), the Pacific Institute is a non-profit research center dedicated to protecting our natural world, encouraging sustainable development, and improving global security.

www.pacinst.org

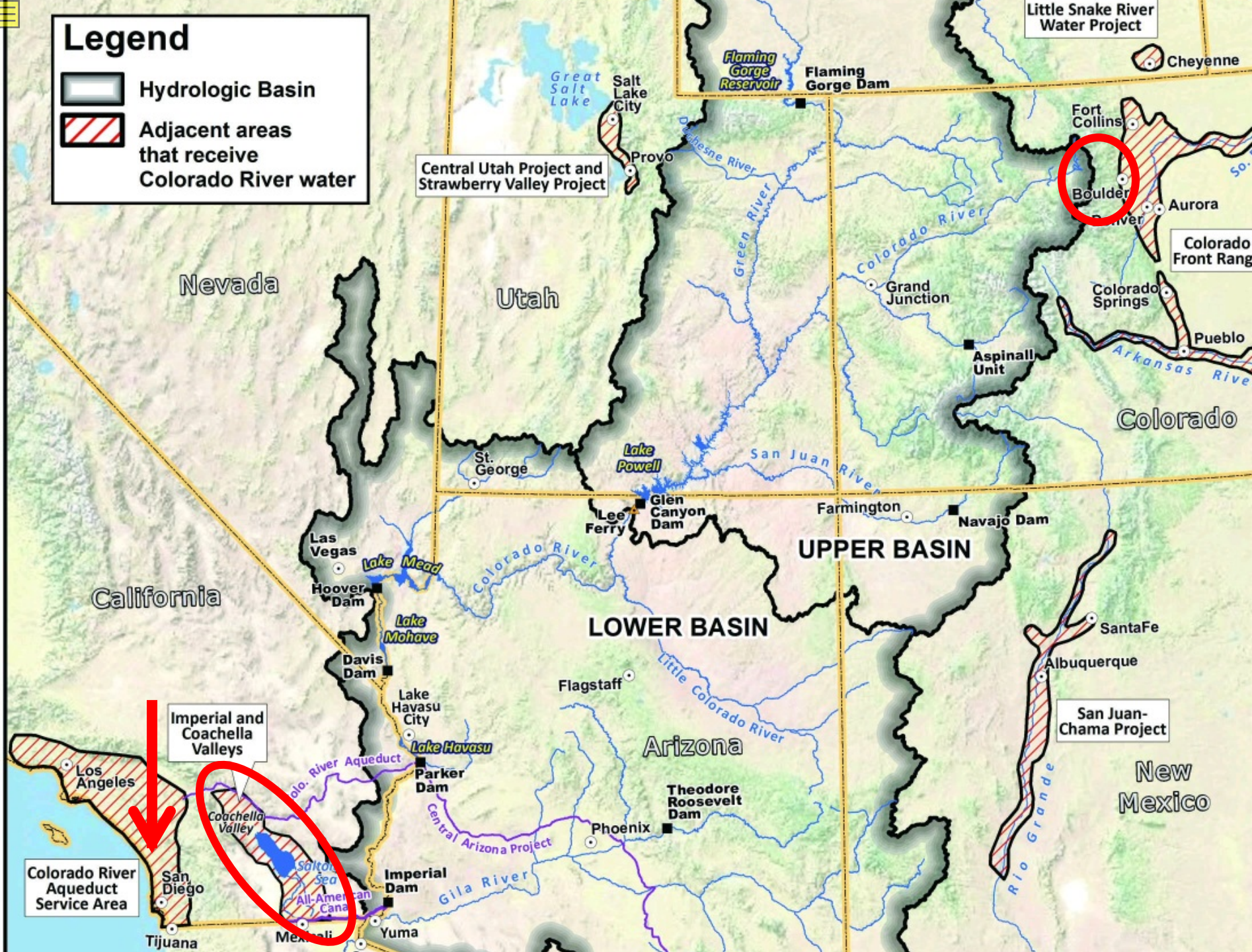
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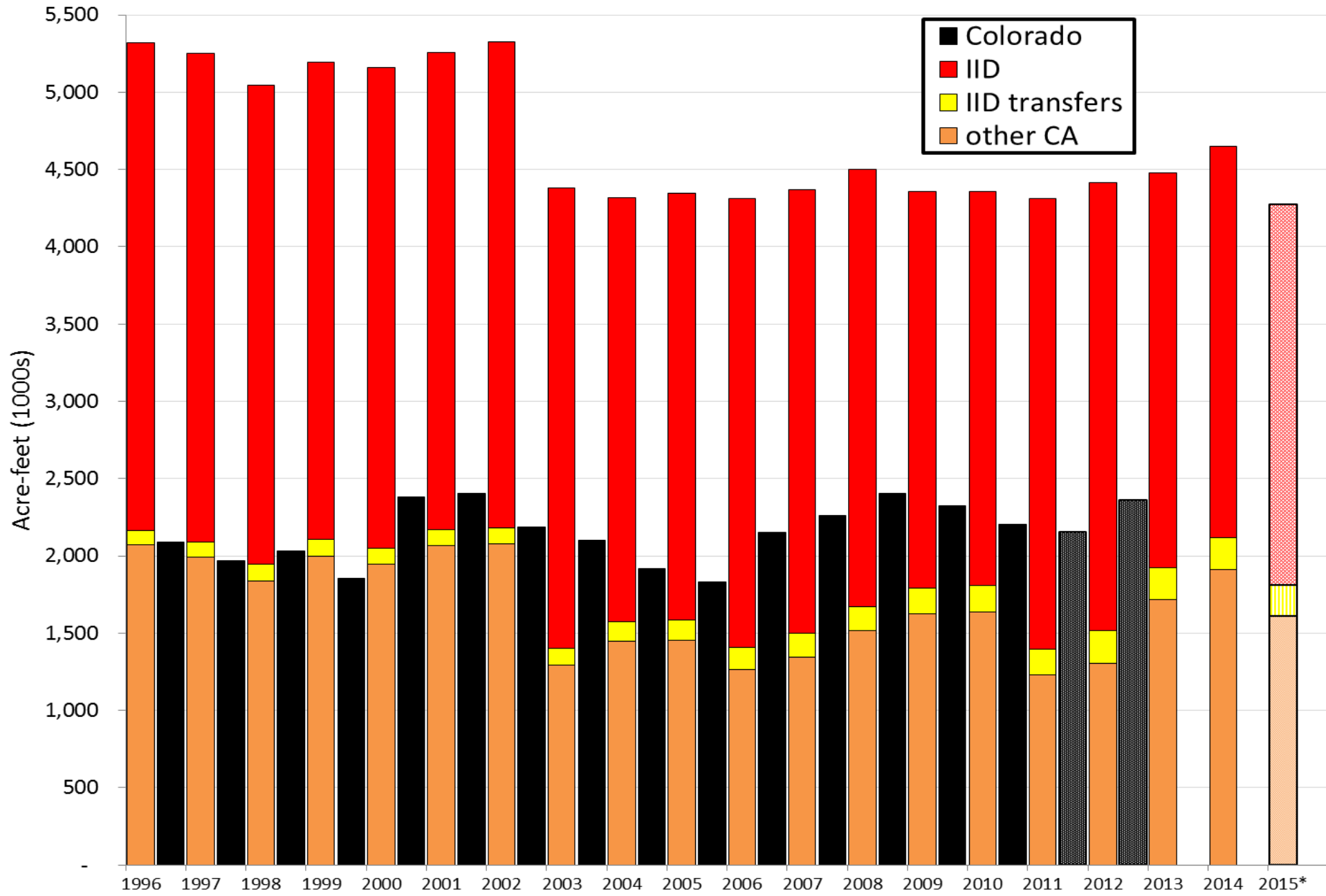


Hydrologic Basin



Adjacent areas that receive Colorado River water







Overview

- **Background**
- **Water supply importance**
- **Transfer impacts & costs**
- **Possible outcomes**
- **Solutions**

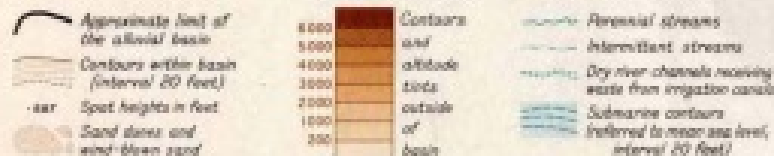
THE COLORADO DELTA REGION

APPROXIMATE STATUS OF 1933

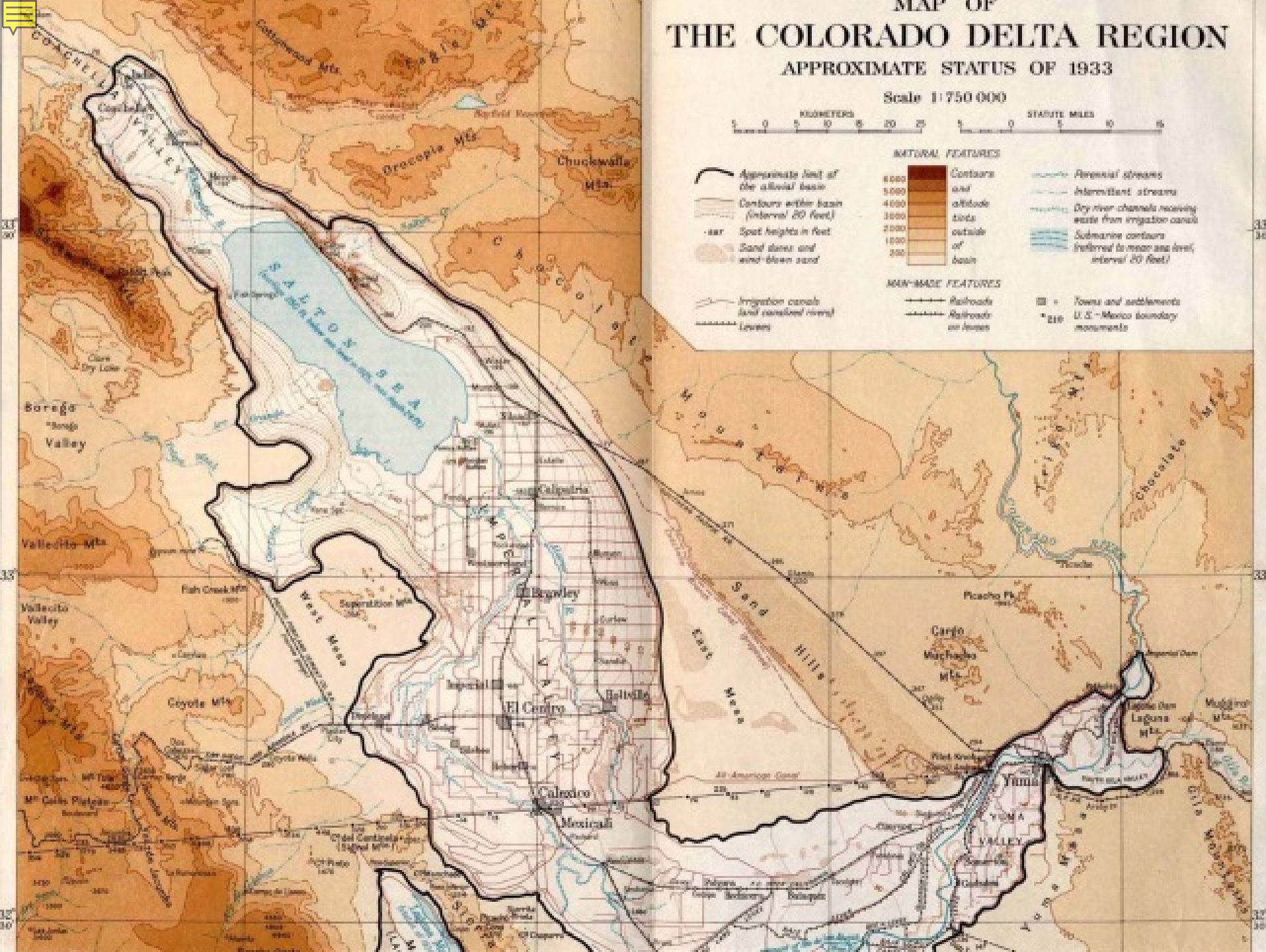
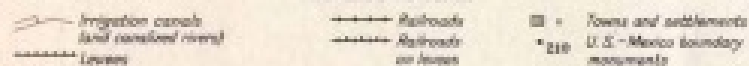
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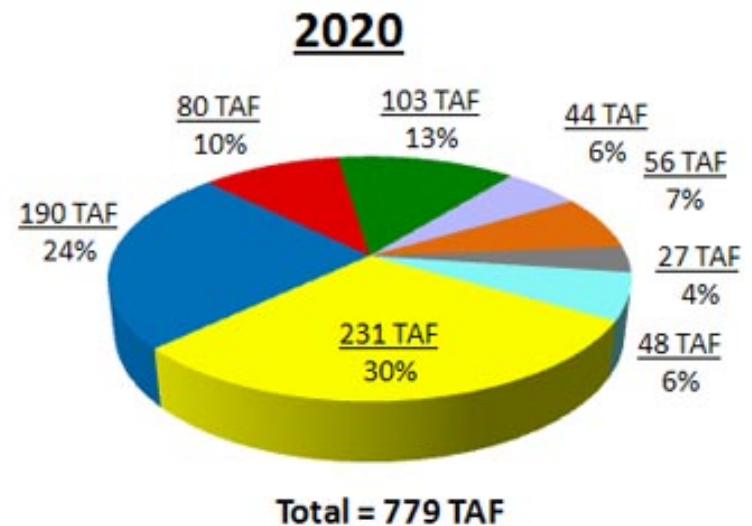
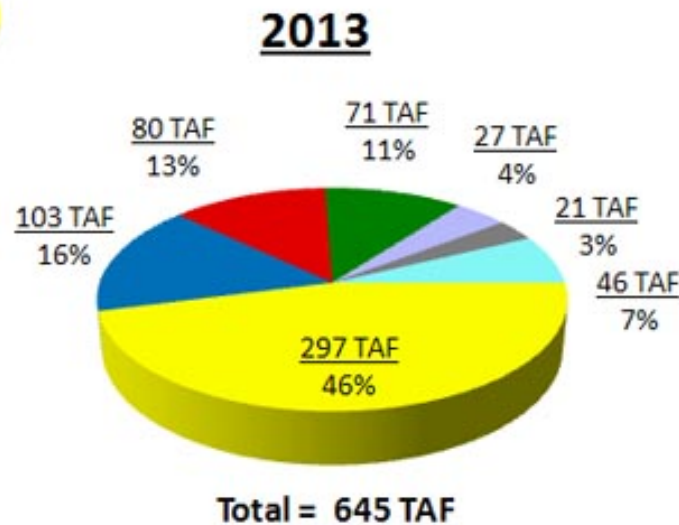
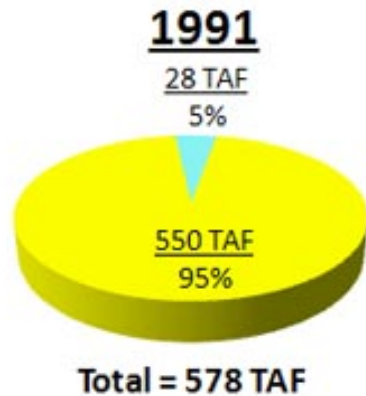
INTERNAL FEATURES



NON-MADE FEATURES



Increasing San Diego County's Water Supply Reliability through Supply Diversification



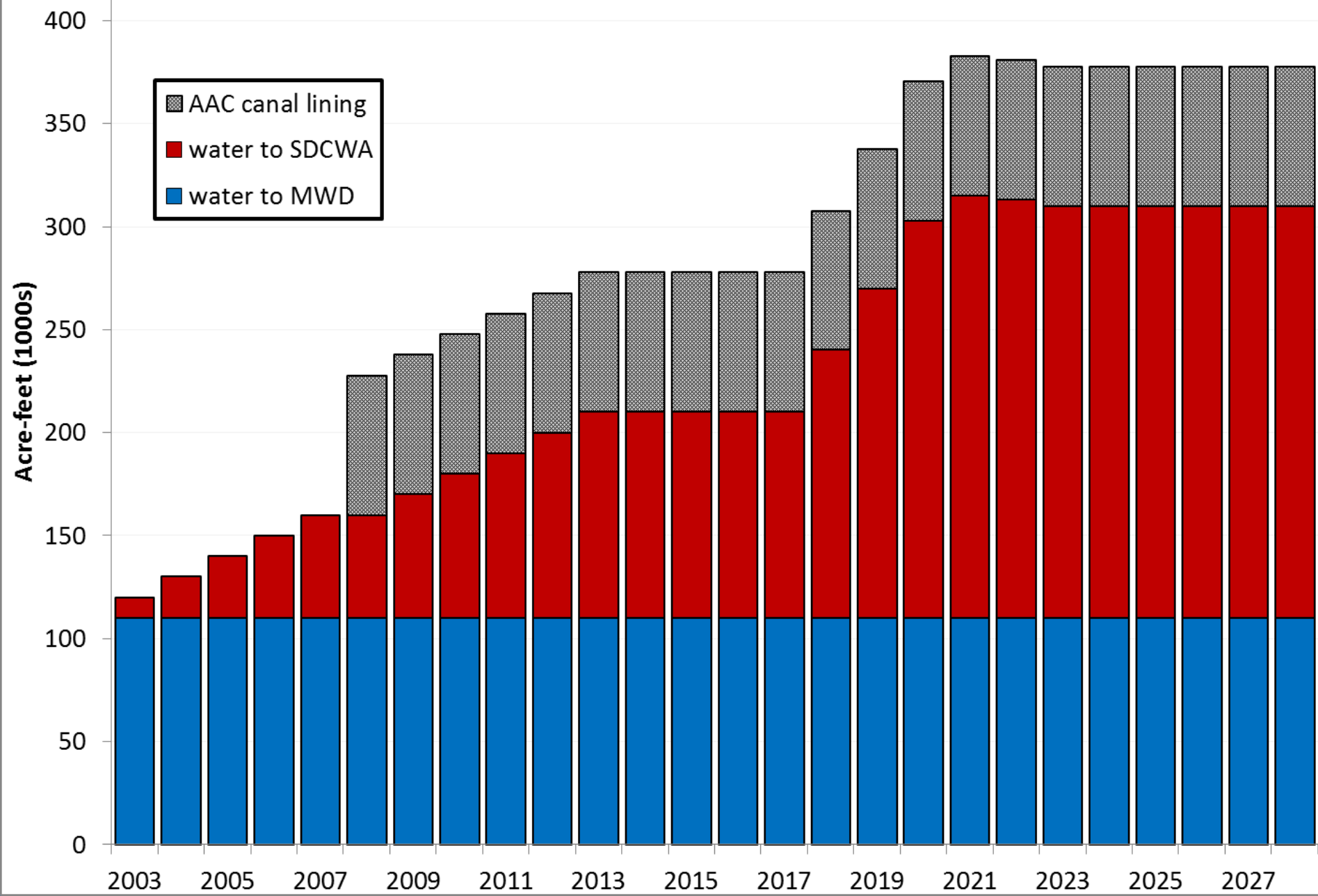
- Metropolitan Water District
- Imperial Irrigation District Transfer
- All American & Coachella Canal Lining
- Conservation (existing and additional)

- Recycled Water
- Seawater Desalination
- Groundwater
- Local Surface Water

TAF=Thousand Acre-Feet



Colorado River Water from IID



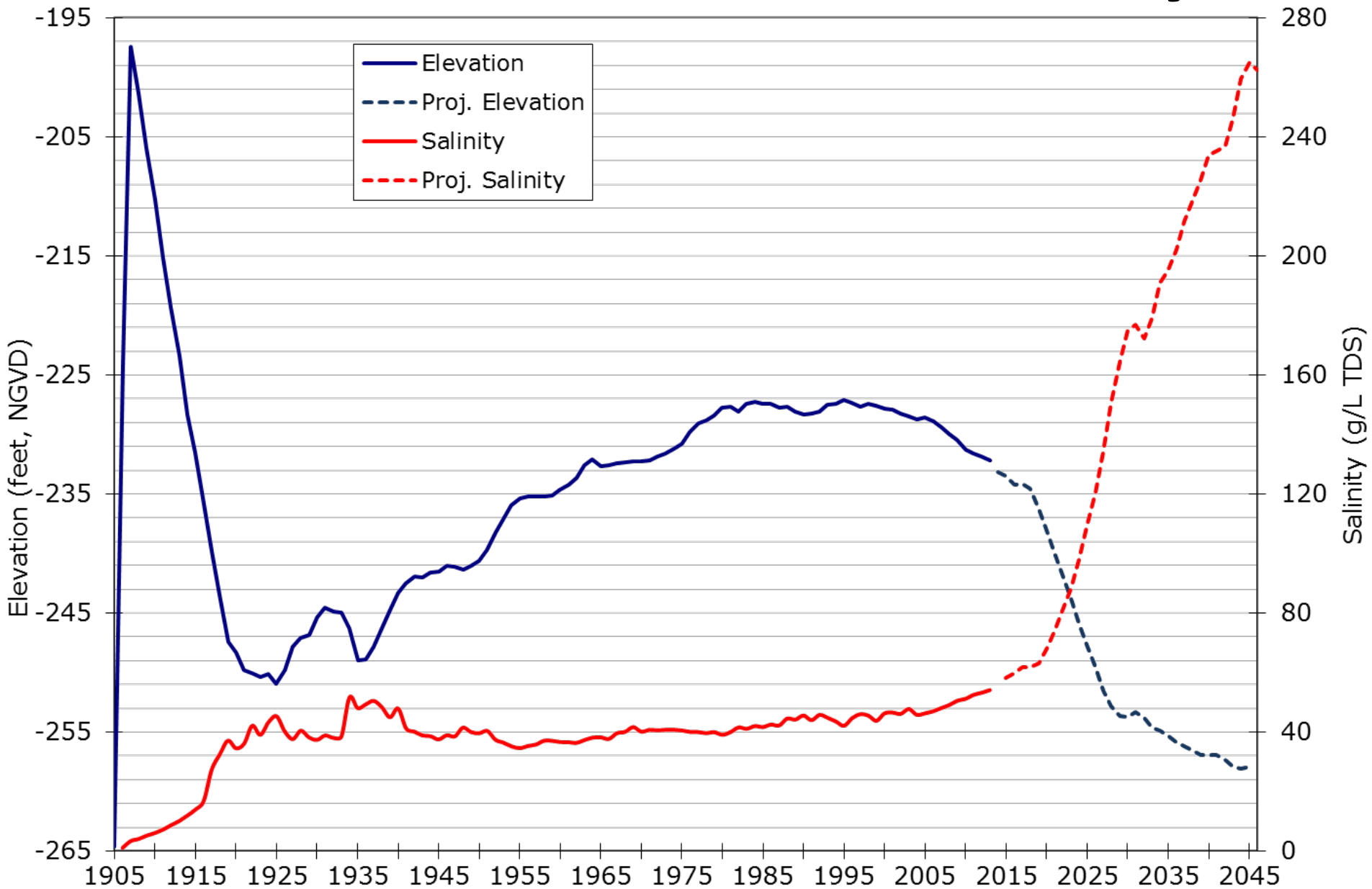
A satellite map of Southern California, showing the Coachella Valley, Palm Desert, Indio, Coachella, Mecca, and the Salton Sea. The map is dark with yellow and white text. A red pin is located near the top left, and a grid icon is in the top right.

Overview

- Hydrologic links
- Water supply importance
- **Transfer impacts & costs**
- Possible outcomes
- Solutions



Salton Sea Elevation & Salinity

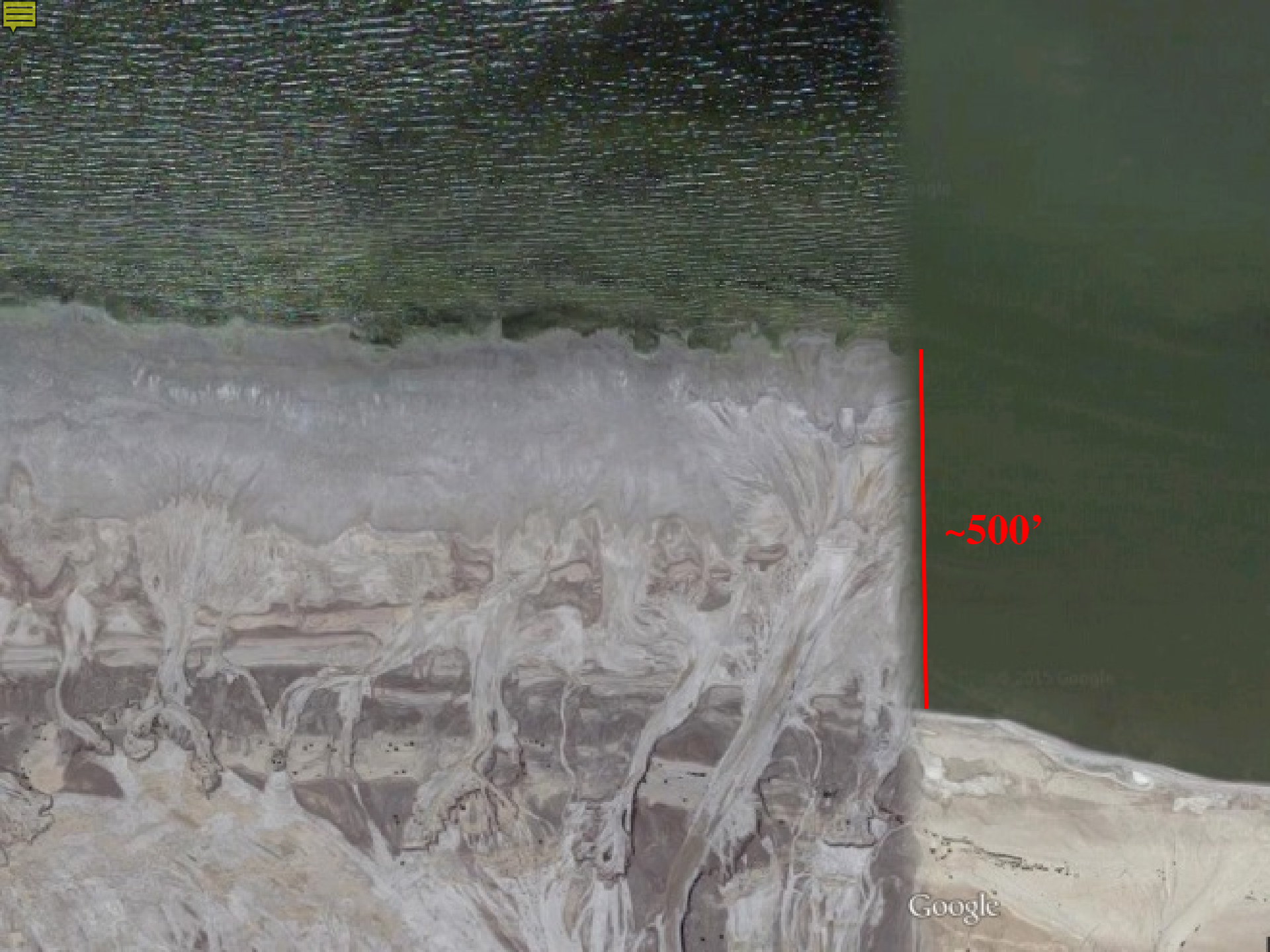




+M

ster
Manage

Salton Sea National



~500'

Google





Air Quality

- CV and IV 'serious non-attainment areas' for PM10 (small dust particles)
- Currently about 261 tons/day of PM10 in basin
- 26.5 sq. miles of lakebed exposed by 2018 – responsibility of individual landowners
- as much as 150 sq. miles of exposed lakebed
- Potentially, additional 100 tons/day of PM10



01.13.2010



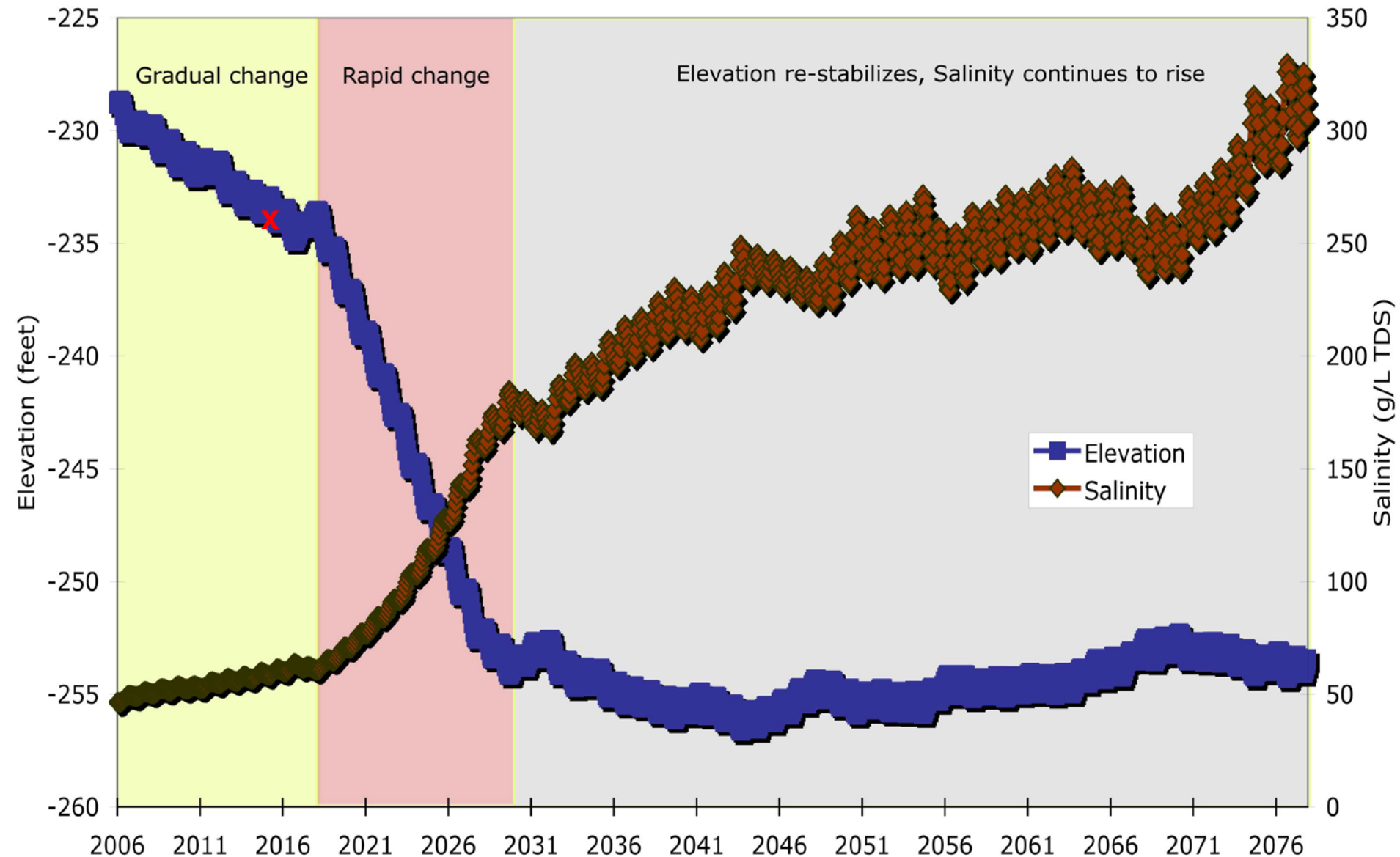
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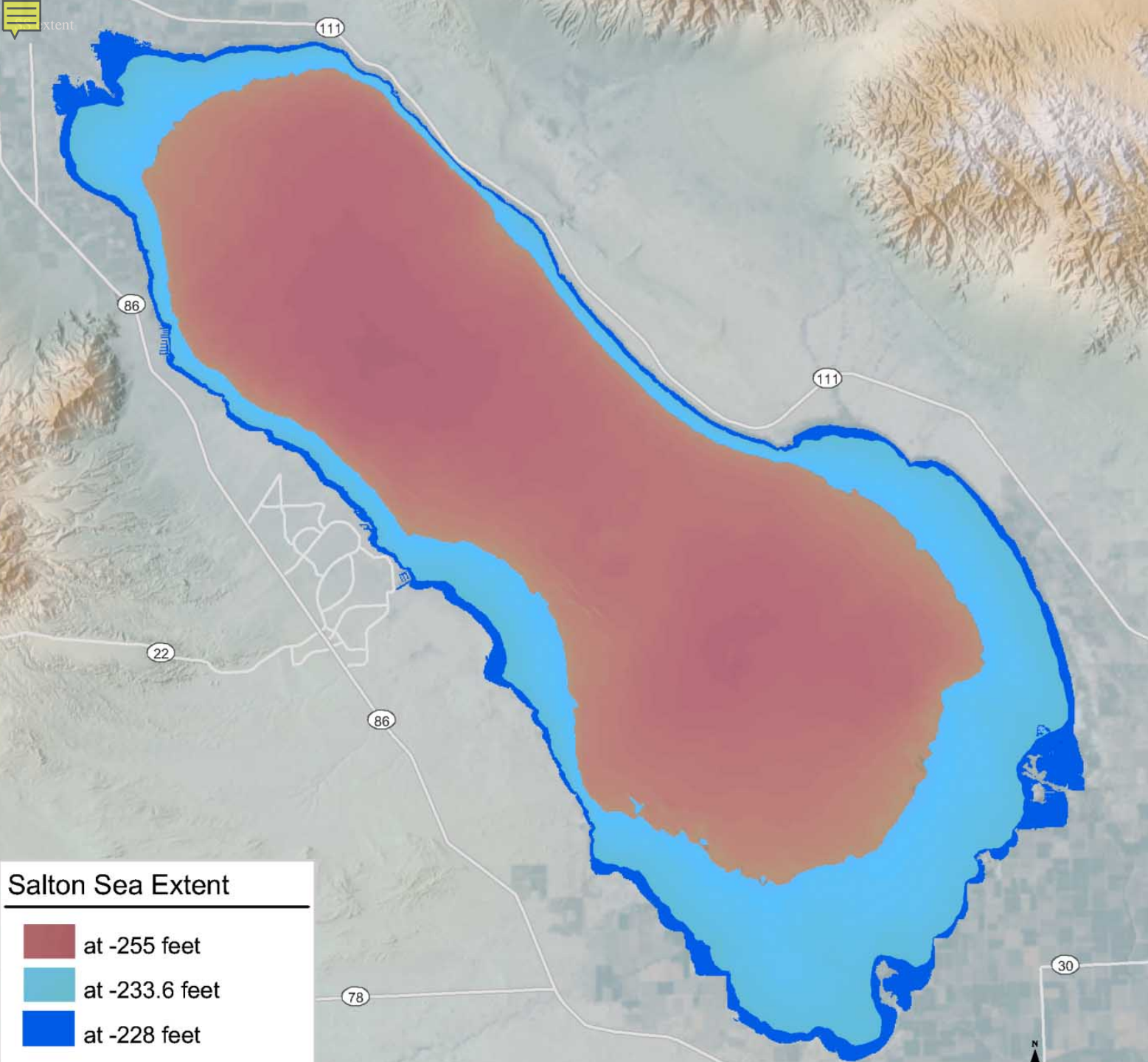


Dust Impacts

- Decreased lung growth in children
- Increased childhood & adult asthma
- Cardiac disease
- Lung cancer
- Increased mortality rates
- Increased hospitalization rates
- Short-term & longer term impacts

Salton Sea Elevation and Salinity





**Sea could
recede >5
miles from
current
shoreline**



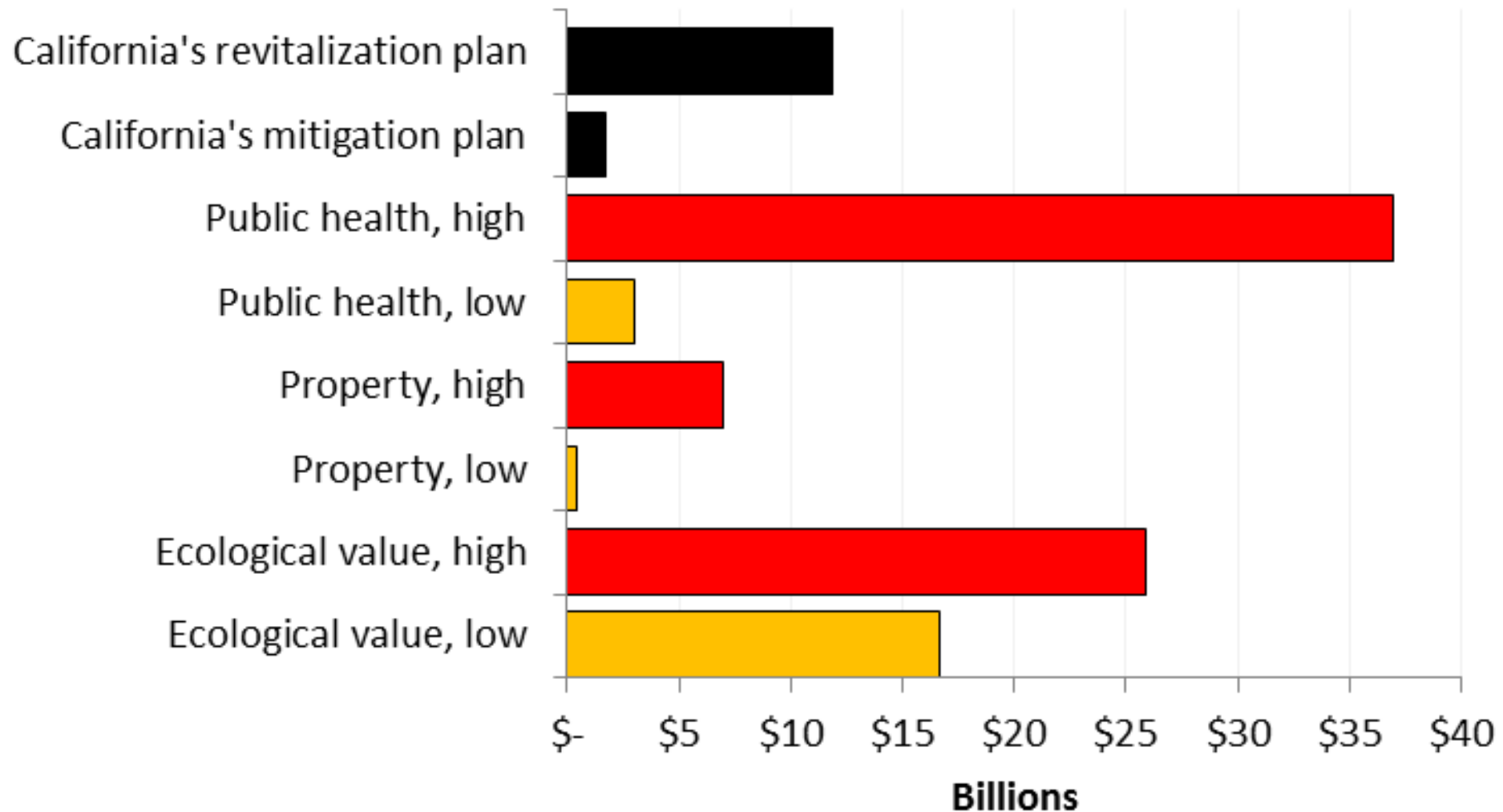
Hazard's Toll

The Costs of Inaction at the Salton Sea



September 2014

The Costs of Inaction





A satellite map of Southern California, showing the Coachella Valley, Palm Desert, Indio, Coachella, Mecca, and the Salton Sea. The map is dark with yellow and white text. A red pin is located near the top left, and a grid icon is in the top right. The word "Overview" is written in large yellow letters at the top center. A list of bullet points is on the left side, with the fourth bullet point highlighted in yellow.

Overview

- Hydrologic links
- Water supply importance
- Transfer impacts & costs
- Possible outcomes
- Solutions



Failure to Act

- w/o project, Sea will change dramatically
- high human health costs
- increased AQ-related litigation
- increased costs to bring area into compliance
- catastrophic ecological impacts
- threat that transfers will be postponed until action taken, jeopardizing MWD water reliability

SWRCB PETITION: A CALL TO ACTION FOR THE SALTON SEA



IID recently submitted a petition to the State Water Resources Control Board to exercise its continuing authority over the nation's largest agricultural-to-urban water transfer and avert an emerging environmental and public-health crisis at the Salton Sea. IID and Imperial County are partnering on a joint presentation to the Board to ensure that the Board hears a unified message from the Imperial Valley.

Time is running out on the state's unmet obligation to restore the Salton Sea

- In 2003, the Legislature recognized that the benefits of the Quantification Settlement Agreement flow to all Californians and committed the state to assuming the cost of Salton Sea restoration.
- The serious and far-reaching environmental effects of the QSA on the Salton Sea were widely known at the time. Absent the Legislature's statutory commitment, which the QSA parties relied on in approving the agreement, the nation's largest agricultural-to-urban water transfer could not have moved forward.
- Under the State Water Resources Control Board's revised order (WRO 2002-0013), the Imperial Irrigation District has been fallowing land to generate mitigation water for the Salton Sea. In 2017, that mitigation water, which was intended to provide the state sufficient time to select, adopt and fund Salton Sea restoration, will end and any real hope of building a smaller but sustainable sea will end with it.

The failure to act now will have devastating impacts on the region, its economy and way of life

- Windblown dust emissions from as much as 100,000 acres of exposed lakebed will dramatically worsen the already-poor air quality in the Imperial and Coachella valleys and imperil the region's largely agricultural economy, which accounts for nearly 50 percent of all local employment.
- The incidence of asthma, heart and lung disease and even premature death among the working-class population of this mainly rural and economically disadvantaged region can be expected to increase exponentially in the years ahead.
- The environment at the Salton Sea, including what the Audubon Society calls an environmental stronghold because it contains some of the most important bird habitat in the hemisphere, will be lost if the state continues to shirk its restoration commitment.



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

NOTICE OF PUBLIC WORKSHOP

SOLICITATION OF COMMENTS REGARDING THE STATUS OF THE SALTON SEA AND REVISED ORDER WRO 2002-0013

Wednesday, March 18, 2015 – 9:00 a.m.

Joe Serna, Jr. – Cal/EPA Headquarters Building
Coastal Hearing Room
1001 I Street, Second Floor
Sacramento, CA

NOTICE IS HEREBY GIVEN that the State Water Resources Control Board (State Water Board) will hold a public workshop to receive information and solicit public input regarding the provisions of the State Water Resources Control Board's (State Water Board or Board) decision relating to the Salton Sea and whether the State Water Board should take further actions to address the Salton Sea's future.

On November 18, 2014, the Imperial Irrigation District (IID) filed a Petition for Change seeking modification of [Revised Order WRO 2002-0013](#), which approved a long-term transfer from Imperial Irrigation District to San Diego County Water Authority (SDCWA), Coachella Valley Water District (CVWD) and Metropolitan Water District of Southern California (MWD), to the State Water Board. As discussed below under "Issues for Discussion at Workshop," the scheduling of this workshop does not reflect a conclusion that changes to Revised Order WRO 2002-0013 would be an appropriate way to address issues concerning restoration of the



Solutions

- **State participation:**
 - **Funding commitment**
 - **Vision**
- **expedite funding & construction of AQ & habitat projects**
- **need for urgency**
- **manage water better**



SALTON SEA
DATABASE
PROGRAM